

INDUSTRIAL PRACTICE REPORT

PT. PONDASI INTI SEJAHTERA



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**INDUSTRIAL ENGINEERING PROGRAM
FACULTY OF INDUSTRIAL TECHNOLOGY
UNIVERSITAS ATMA JAYA YOGYAKARTA**

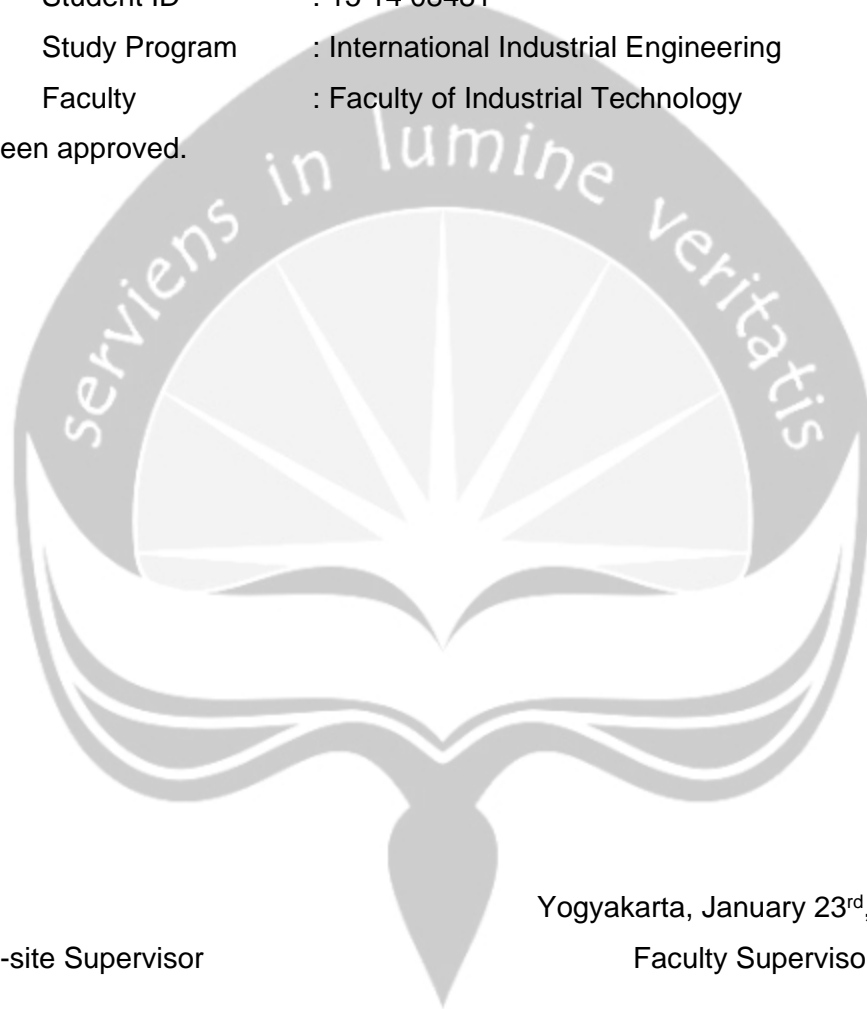
2019

APPROVAL

The industrial practice report which is written basen on the industrial practice at PT. Pondasi Inti Sejahtera during the period at December 13, 2018 until January 18, 2019 by:

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ACKNOWLEDGEMENT

Author would like to thank God Almighty for His amazing grace and guidance, also author's parent who had support and pray for author's industrial practice. This industrial practice report was written as an academic requirement for fulfilling industrial practice course. Other gratitudes go to:

1. PT. Pondasi Inti Sejahtera as company that already accept author to perform industrial practice.
2. Yustinus Rusmin as the owner of the company who accept me as the intern
3. Mrs. Yayuk as the general manager which help me a lot.
4. Mr. Koko as a mentor.
5. Workers of PT. Pondasi Inti Sejahtera that taught me how to work with professional attitude and experiences.
6. Kristanto Agung Nugroho, S.T., M.Sc. as author's academic advisor for his support and suggestions during author's project and report writing.
7. Others that help and support through this project and report writing.

Yogyakarta, February 11, 2019

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CHAPTER 1

INTRODUCTION

This chapter will focus on introduction which consists of background, objective, industrial practice location and schedule.

1.1. Background of Industrial Practice

Department of Industrial Engineering, Universitas Atma Jaya Yogyakarta (PSTI UAJY) defines the industrial practice as a simulator that enables the students not only to apply the Industrial Engineering knowledge into real-world industry but also to train the student how to be a professional of Industrial Engineer. For this purpose, during the industrial practice the students are requested to work in the host company for a period of one month.

The students should keep in their mind, that the paradigm of industrial practice is that the students are expected to experience the application of Industrial Engineering knowledge in practice in which it can be obtained if during their industrial practice the students do some activities to enhance their understanding in term of planning, designing, improving, implementing and problem solving. Therefore, during the industrial practice periods the students are requested to:

- a. Doing all the tasks that have been assigned by the host company
- b. Following all relevant working procedures of the host company
- c. Capturing the big picture of the enterprise system in the host company and observing its characteristics

Since Industrial Engineer is dealing with the integrated system of some elements which are Man, Machine, Material, Methods, Money, Energy, Environment and Information, therefore, during the industrial practice the students should relate all of their activities in term of system perspective. Based on the explanation above, it is clearly seen that industrial practice is not only gathering the data.

According to the Curriculum Document of PSTI UAJY, industrial practice is an academic course in which the students should register for the course for 2 credits. Then, in order to fulfill the academic requirement of industrial practice, the students

are required to submit an industrial practice report. The performance of the student itself is evaluated both by on-site supervisor and by faculty supervisor.

1.2. Objective of Industrial Practice

The aims of the industrial practice are:

- a. Practice discipline.
- b. Improve the interaction between student and his/her ordinate or workmate.
- c. Practice adaptability in the working atmosphere.
- d. Observe the daily work in the host company.
- e. Enhance the Industrial Engineering knowledge in practice by seeing the practical work in the host company.
- f. Enhance the knowledge of production and enterprise system.

1.3. Industrial Practice Location and Schedule

The industrial practice was held in PT. Pondasi Inti Sejahtera at Jl. Bugisan Selatan No.40, Kasihan, Bantul, D.I. Yogyakarta. The industrial practice started from December 13, 2018 until January 18, 2019. At the beginning of industrial practice, student will be introduced by the mentor about the process, problem occurred, and potential topic for the project. There is not any specific work in the company for intern, so the mentor asked if it is fine for the intern to be placed in the administration room with other workers. But the mentor gave a specific job to improve anything that could be improved by using industrial engineering science.



Picture 1.1. Front view of the company

CHAPTER 2

COMPANY BACKGROUND

This chapter consists of Company History, Organization Structure, and Company Management.

2.1. Brief Company History

PT. Pondasi Inti Sejahtera that located in Jl. Bugisan Selatan no.40, Yogyakarta established in November 17th, 2016 by Yustinus Rusmin. This company started with 23 workers consist of 11 male workers and 12 female workers. work on packing baking material under POINT as its own brand. It started from baking material shop, the owner had several shops that sell baking material as a retail. Then, the owner started to think about establishing his own factory that producing baking material with their own brand. The product produced start to sell in the market as a new comer with rather cheaper price than the competitor. Although the product is not as expensive as the others, but the product quality still qualified by BPOM, Health ministry and Halal certification.

2.2. Organization Structure

Organization structure is a structural relationship between people who is connected to one another in doing each task and function in the organization. Organization structure is important, without organization structure company will be hard to operate. Organization structure in each company may be different because it adjusts with the needs of the company.

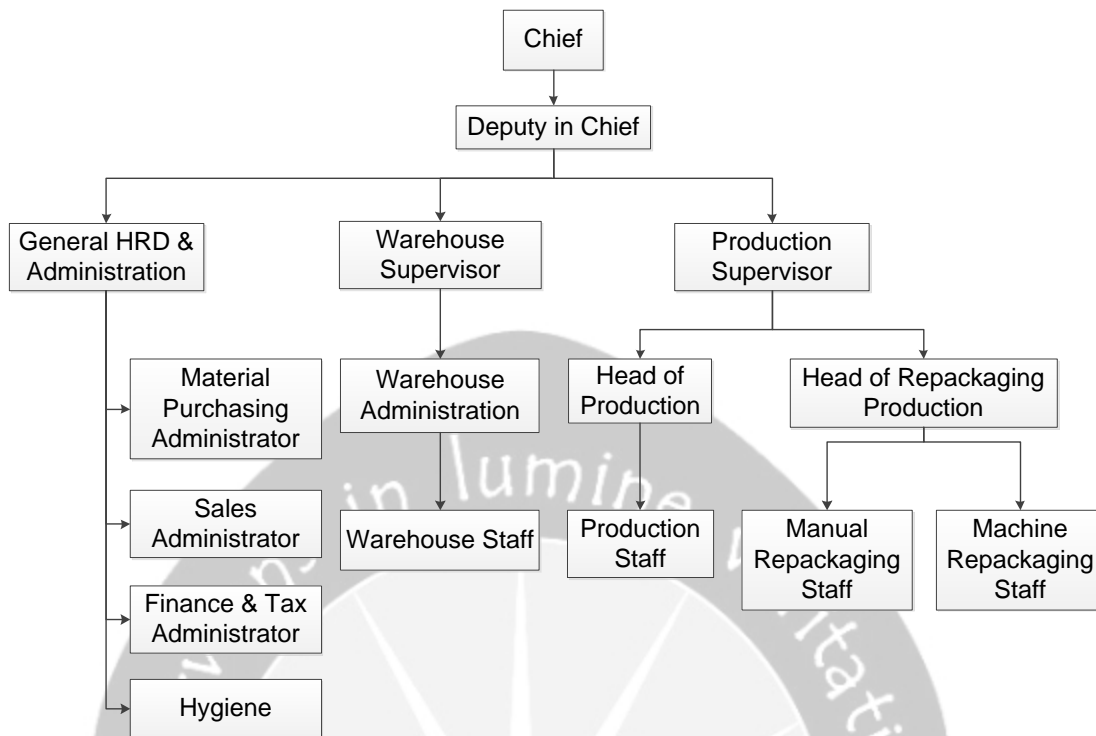


Figure 2.1. Organization Structure of PT. Pondasi inti Sejahtera

Task, authority and position of organization structure will be further explained below:

a. Deputy in Chief

The responsibilities are:

- i. Responsible in supervising all the work in the company
- ii. Responsible in legalize the product to the government and institution
- iii. Responsible in creating the standardize process for each department
- iv. Responsible in evaluating workers performance monthly
- v. Responsible in representing the chief position whenever the position is unable to attend.

b. General HRD & Administrator

The responsibilities are controlling the work of warehousing, fire safety equipment, workers safety, human resources, hygiene and others task charged.

c. Warehouse Supervisor

The tasks are:

- i. Ordering materials to the supplier, recording and keeping the accuracy of purchasing the materials into the warehouse
 - ii. Recording and keeping the accuracy of expenses materials from the warehouse to the production
 - iii. Updating materials data into the computer
 - iv. Any tasks charged.
- d. Production Supervisor

The responsibility of the production supervisor is to prepare goods that is going to be distributed and the tasks are:

- i. Receiving and record customer orders and sent it to the production department
 - ii. Receiving finished good of the production
 - iii. Making delivery orders of goods distributed to the customers based on customer orders
 - iv. Updating finished goods data that have been distributed to the customers into the computer.
- e. Head of Repackaging Production

The tasks are:

- i. Packing
 - ii. Procuring the packaging plastics
 - iii. Maintaining repackaging machines
 - iv. Cleaning the production room
 - v. Other tasks charged.
- f. Head of Production

The tasks are:

- i. Maintaining production machine (mixers)
 - ii. Cleaning production machine
 - iii. Cleaning production room
 - iv. Other tasks charged.
- g. Warehouse Administrator

The warehouse administrator has a responsibility to update materials data into the computer and administrate materials in and out data in the warehouse.

- h. Material Purchasing Administrator

The main task of material purchasing administrator is to procure material or ordering material from the supplier.

i. Hygiene

This position main responsibility is to control and check all the hygiene of the factory.

j. Sales Administrator

The tasks are:

- i. Ensure all sales invoice
 - ii. Making sales and goods out recapitulation daily and ensure the validity of the information
 - iii. Ensure to charge expired invoice and record paid off transaction into the computer system
 - iv. Input and update customer data
 - v. Receive returns (check the condition of the goods) and record it into the computer system, and returning the goods to the warehouse department
 - vi. Other tasks charged.
- k. Financial & Tax Administrator

The tasks are:

- i. Record other receiving other than sales into computer system
- ii. Mutating account from cash into the bank, interbank, from owner's loan to the bank/cash or from bank/cash to repay owner's loan
- iii. Record daily expenses into the computer system and define the right expenditure item based on the real expenses
- iv. Authorize small cash expenses
- v. Report daily, weekly or monthly income and cost used by the head of department
- vi. Schedule purchasing repayment and input the data into the computer
- vii. Sent the authorized data into external party
- viii. Report anything related to tax needs.
- ix. Other tasks charged

l. Warehouse staff

The warehouse staff only have one main task, the warehouse staff must arrange all stock in the warehouse in order, but also need to follow other task assigned.

m. Production Staff

The production staff must maintain the production machine, clean the production room and machine and other tasks assigned.

n. Manual Repackaging Staff

The manual repackaging staff must pack the product into smaller pack, clean the production room and tools, procure packing plastic and other tasks assigned.

o. Automated Repackaging Staff

The production staff must maintain the repackaging machine, clean the repackaging room and machine and other tasks assigned.

2.3. Company Management

2.3.1. Company's Vision and Mission

a. Company's Vision

Being the best comestibles producer in Indonesia

b. Company's Mission

We are a company that established to fulfill the best quality comestible needs that is safe to be consumed according to the comestible standard and affordable by the society.

c. Core Values

PT. Pondasi Inti Sejahtera has three core values in developing the company. The values are focusing on the reliable, safe and comfortable. Below is the explanation of each value:

i. Reliable

The company will always maintain government trust in manifesting healthy society by always providing standard comestible and creating employment for the society to achieve the prosperous society.

ii. Safe

Product produced has been registered and meet the standard, so it is safe and good to be consumed by the society.

iii. Social Responsibility

Creating a discipline but comfortable working environment, the company hope that they could support the employee to grow, so the employee could work comfortably and conducive but productive.

2.3.2. Employment

PT. Pondasi Inti Sejahtera have around 100 workers, which distributed into several department with different job, tasks and qualification.

a. Employees Recruitment

Procedures and requirements set by the company are:

- i. Applicant must send their curriculum vitae, application letter and graduation certificate to the company directly or via email.
- ii. Interview, the owner will interview the applicant directly with the help of expert. So, when the applicant applied for tax accountant position, the tax expert will test the applicant by asking the applicant to create a tax entry.

b. Working Hours

All employee on PT. Pondasi Inti Sejahtera must work under working time determined by the company. The employee must work from 08.00 to 17.00 WIB, the employee granted an hour to take a break from 12.00 to 13.00 WIB. This is basically the standard working hour for all employee determined by the government law. The employee work for six days a week and will be off on every sunday and national holiday.

c. Employees' Welfare

The company method to fulfill worker's needs is by providing basic welfares needed by the employee to work in the comfortable working area. So, these are welfares provided by the company.

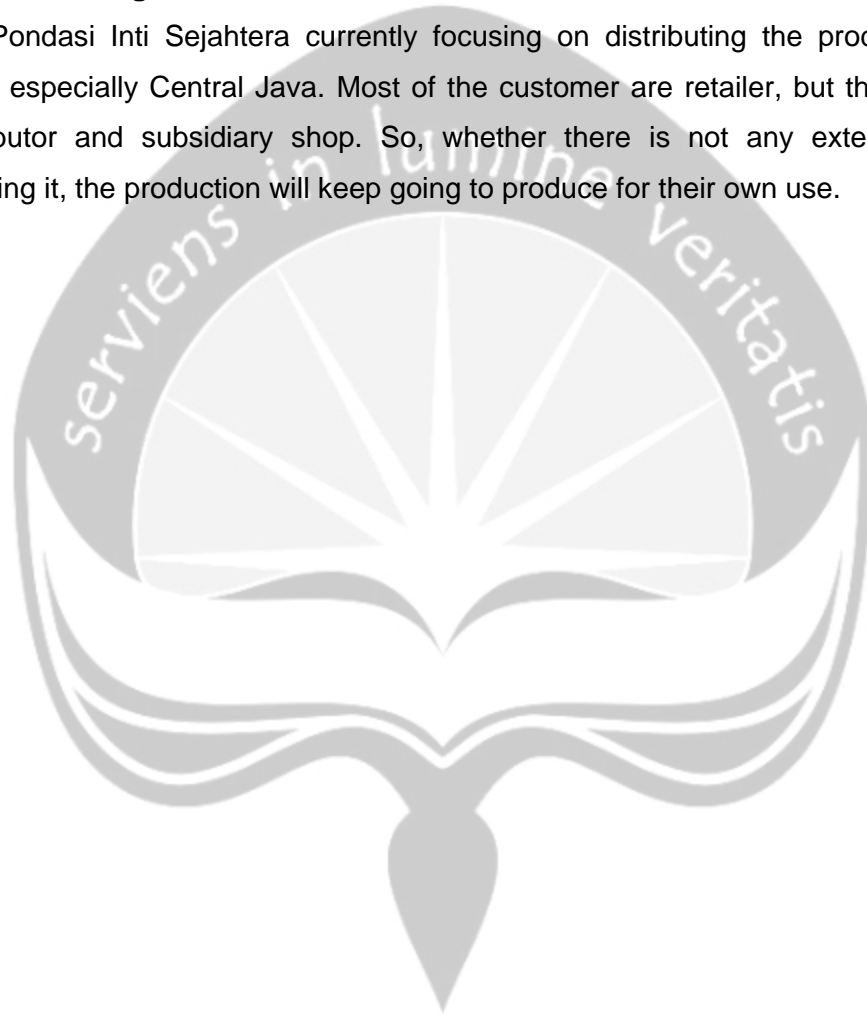
- i. Holiday's bonus and others
- ii. Overtime bonus
- iii. Health and working insurance (BPJS)
- iv. Locker
- v. Rest area
- vi. Prayer room
- vii. Parking for cars and motorcycles
- viii. Etc.

The company also provide clear instruction to clean the workers hand before working to keep the workers hygiene stay clean. The company also provide mask and gloves to keep the workers safe from any dust caused by the material packed in the

production floor, so the workers will be safe, and the workers' will stay healthy without risking their long term health issues cause by the hazard. The company also provide unlimited source of fresh drinkable water. This welfare is to keep the workers hydrated, so they will stay hydrated all day. This is important since dehydration could affect workers focus and skill.

2.3.3. Marketing

PT. Pondasi Inti Sejahtera currently focusing on distributing the product through Java, especially Central Java. Most of the customer are retailer, but there are also distributor and subsidiary shop. So, whether there is not any extern customer ordering it, the production will keep going to produce for their own use.



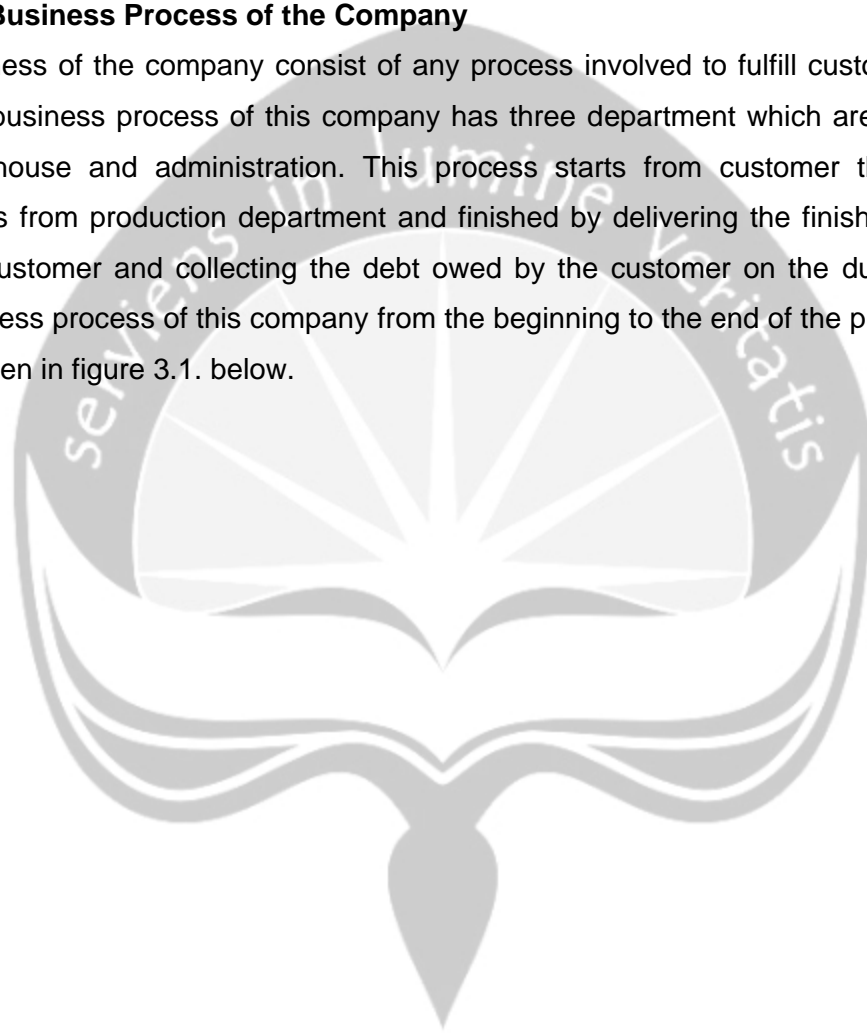
CHAPTER 3

COMPANY SYSTEM

This chapter is explained about company system which consists of business process, list of products, production process, and production facilities.

3.1. Business Process of the Company

Business of the company consist of any process involved to fulfill customers order. The business process of this company has three department which are production, warehouse and administration. This process starts from customer that ordering goods from production department and finished by delivering the finished goods to the customer and collecting the debt owed by the customer on the due date. The business process of this company from the beginning to the end of the process could be seen in figure 3.1. below.



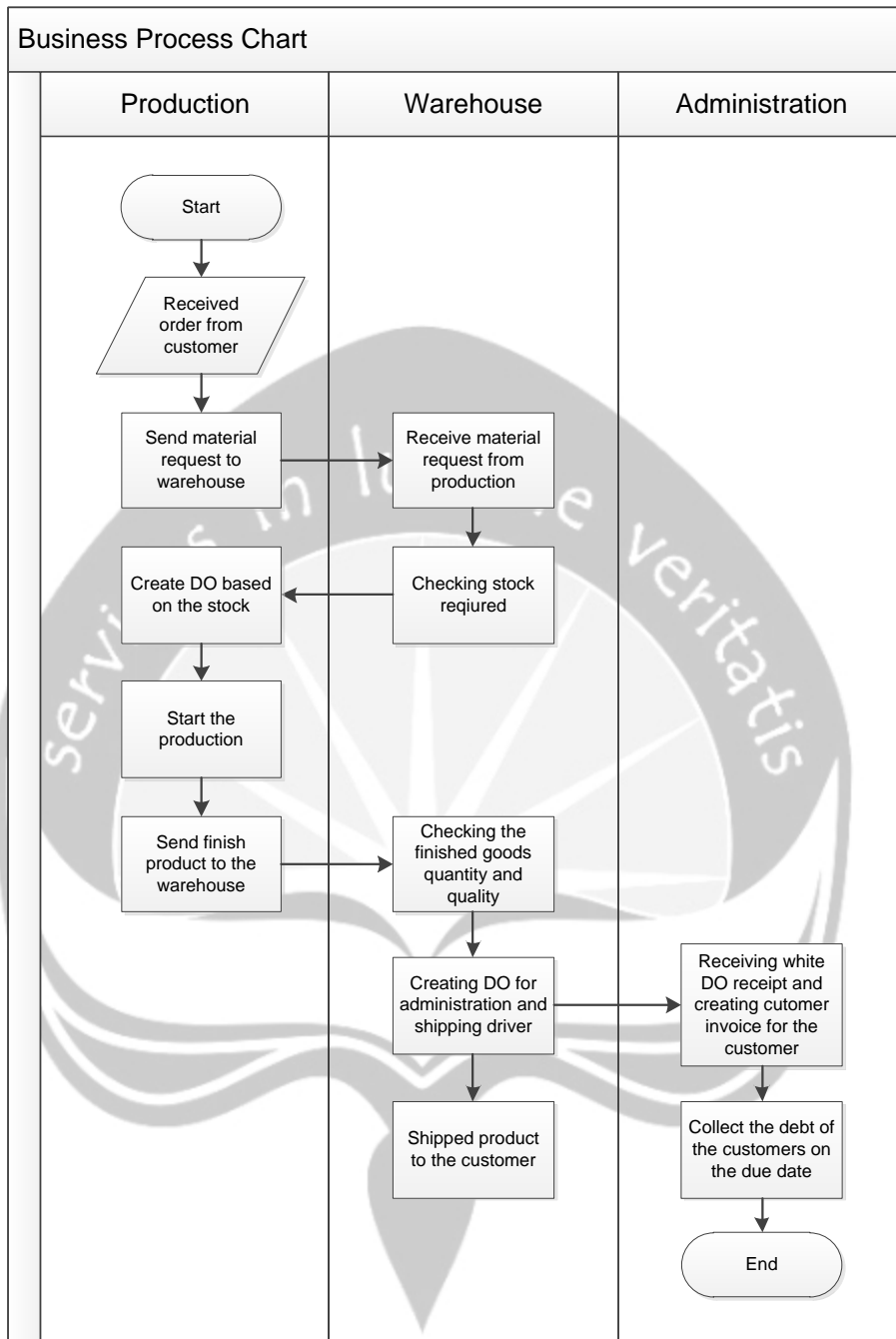


Figure 3.1. Business Process of PT. Pondasi Inti Sejahtera

3.2. List of Product

The company mainly repackaging finished and semi-finished goods with bigger size of packaging from suppliers into smaller packaging, the finished goods tagged using company's brand. Beside repackaging the product, the company also producing fine granulated sugar by using sugar smoothing machine. Although the process is simple, but the product variation produced by the company consist of 158 type of finished goods. Table 3.1. below is the sample for each product produced by the company.

Table 3.1. List of The Product Produced

No.	Product	Example
1	Vegetable Oil	MCM, BB LOS, Flake Pastry, etc.
2	Drinking	Avocado, Blueberry, Cappuccino Café Drinking, etc.
3	Spices	Chili, Black pepper, cinnamon powder, etc.
4	Palm Sugar	Palm, Liquid Sugar, Dextronos, etc.
5	Flour	Red Beans, Cassava, Banana Flour, etc.
6	Coconut Milk Powder	Coconut Milk Powder and dried coconut
7	Dried Fruit	Cranberries, Dried Apricot, Mix peel, etc.
8	Tea	Green Tea Powder
9	Almond	Sliced Almond, Roasted Nut, Pumpkin Seed, etc.
10	Jam	Peanut, Strawberry, Blueberry jam, etc.
11	Coloring Liquid	Blue, Green, Pink, Yellow Coloring Liquid, etc.
12	Coloring Powder	Bright Red and Yellow Coloring Powder
13	Artificial sweetener	sodium cyclamate and sodium tripolyphosphate



Figure 3.2. Chocolate Powder



Figure 3.3. Blueberry Drinking Powder



Figure 3.4. Marjoram Spices



Figure 3.5. Donut Dusting Grape

The example of the product could be seen on figure 3.2. until 3.5., but the picture for every product on the list could not be captured, because the company do not produce all product every day. Based on the picture, figure 3.2. shows the picture of chocolate powder which categorized as tea. The chocolate powder categorized falsely, because the government categorized chocolate powder on tea section. Then, blueberry drinking powder could be seen on figure 3.3. that categorized as drinking product. Figure 3.4. shows the picture of marjoram spices which categorized as spices and figure 3.5. which categorized as palm sugar is donut dusting grape.

3.3. Production Process

Repacking process is a simple process which only use a single raw material. Although there are variances of finished product produced, the process basically the same.

3.3.1. Production Resources

Production process is a way or technique to make something through some steps from raw material that will experience many treatments in order to be a product that has function.

Production process will need to use resources. Resources are the main capital to start production process. Resources that are needed are as follow:

a. Materials

Materials can be any ingredients needed by the machines and workers in order to produce finished products for consumer.

b. Humans

Humans are an important part in the production process. Humans' role is to work on the manual packing process, operate automatically packaging machine, check product quality and transport goods.

c. Method

Methods is a way used to produce the product and checking the quality of the goods.

d. Money (capital/fund)

Fund here means money used to purchase raw material, research's cost, employees' wage, electricity's bills, etc.

e. Machines

Machines are needed in production process because in this factory the production runs in semi-automatic. From the bulb picking to filter's delivery process are done by machine (automated).

3.3.2. Semi-Finished Goods

Most of the company process is repacking the semi-finished goods which is ready to be used by the customer, but the semi-finished materials are in enormous quantity for each packaging. Then, the company produce the smaller packaging of the product so the product would suitable for smaller market area.

3.3.3. Plastic Packaging

Plastic used by the company to pack most of the product, each product will be packed into a single packaging either manually or automatically. The packaging consists of different size followed by the quantity of the product packed inside, and there are several types of packaging used by the company which are plastic bottle, plastic bag and sacks.

3.3.4. Sticker

There are two types of sticker used by the company. The stickers consist of barcode sticker which is the identification to distinguish each product, this sticker printed individually by the workers and halal sticker which were legalized by the Indonesian religious leader organization.

3.3.5. Ink

Ink used to print the barcode and name of the product using the printer from production administration office and the ink will be used to print all report needed in the production floor.

3.3.6. Production Facility

Facility layout can be defined as way to organize facilities in factory to support the production process. Production needs tools, equipment, machines, and other facilities. All facilities should be plan in order to meet the production's need so that can result in best quality of finish good, finish in time and minimize the cost. Planning the layout is an optimum option to locate machines and equipment, work area, storage and service facilities, together with the shape of the building.

PT. Pondasi Inti Sejahtera sets its production facility using process layout type. The machine and production floor were grouped according to the function, so the product produce will follow the machine and production floor. The company choose this production facilities, because of type of the product they produce is large.

The company producing its product both manually and automatically, so there are several machines use by the company to produce the product. Machining used by the company to produce or pack more difficult and bigger product, so the product that could produced manually produced manually by the workers. Product with more difficulties on packing and handling such as color powder and color liquid could not be produced by the workers manually, so does larger size of product such as 20 kg flour that need more strength to pack. Beside packing, the company use machine to produce fine granulated sugar by crushing normal sugar in the machine.

Figure 3.6. seen below is a sealing tool used by worker manually to pack smaller packaging. This sealer could pack several types of product such other than powder

material such as fruit, butter and spices. This machine is a semiautomated machine used by the worker to pack the product.



Figure 3.6. Sealer Machine

The company only need a single machine to granulate sugar with large packages, but it will have to be operated by 2 operators, since the materials is extremely big (100kg). The materials will be poured in the second floor and the granulated sugar will be contained into smaller sack on the first floor. The machine could be seen below on figure 3.7.



Figure 3.7. Granulating Machine

There are several automated machines used by the company to pack a product, the list of the machine used by the company could be seen below.

a. Liquid packing machine

Liquid packing machine could be seen in figure 3.8. used by the company to repack large amount of coloring liquid or syrup liquid into small pack or jerry can. The machine could be used by pouring the liquid into the container and the liquid would be automatically packed into smaller packaging. The company owned 3 units of this machine and used continuously and operated by only one operator.



Figure 3.8. Liquid Packing Machine

b. Coloring powder packing machine

There are 3 coloring powder packing machines used by this company to pack all coloring powder. This machine has special room separated by other packing room, because the hazard caused by the material must be kept under control. The machine could be seen in figure 3.9.



Figure 3.9. Coloring Powder Packing Machine

c. Flour packing machine

Flour packing machine used by the company to pack flour into small packages by pouring the flour into the container. This machine could only be used to pack flour, so other powder material could not be packed using this machine, because of the regulation come from the government. The machine could be seen below.



Figure 3.10. Flour Packing Machine

d. Automated packing machine

These packing machines could be used to pack powder into smaller product such as fine granulated sugar, coffee, tea powder, chocolate powder and spices powder.

This machine could pack a lot of material in a short time with a specific size set by the operator. There are 4 machines own by the company that could be seen in figure 3.11.



Figure 3.11. Automated Packing Machine

Material handing in PT. Pondasi Inti Sejahtera only use manual trolley to transport the goods in the warehouse or production floor. So, the goods either in baskets or boxes will be moved manually by the workers when it is possible, but it will be moved using the trolley whenever the goods are in a larger amount and cannot be moved manually. There are also two lift using by the storage workers to transport the big size and large amount of goods from first to the second floor. Both facilities could be seen below on figure 3.12. and 3.13.



Figure 3.12. Trolley

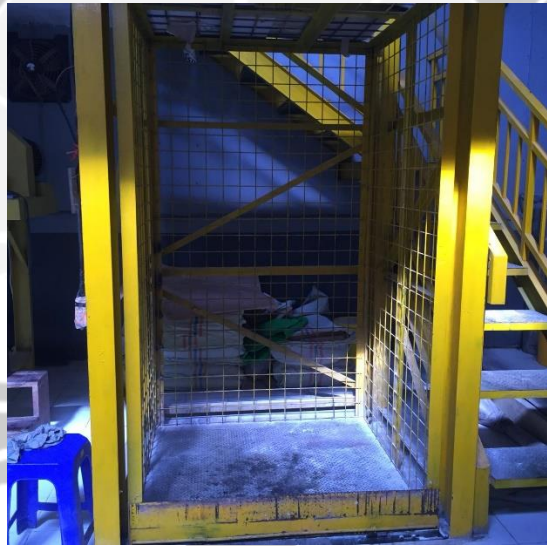


Figure 3.13. Lift

CHAPTER 4

PROJECT REVIEW

4.1. Assignment Scope

Intern of the company assigned in the administration room along the sales and finance & tax administrator. The general HRD & administration will be the mentor and responsible into maintaining and assigning the intern the tasks. The working time for the intern is from 08.00 until 17.00 WIB in Monday – Friday and in Saturday the intern works from 08.00 until 15.00 WIB. The company assigned the intern to solve any problem occurred in the company that could be solved by the intern using industrial engineering principal.

Basically, intern considered by the deputy in chief and general HRD & administrator as the industrial engineering consultant. So, any principal of industrial engineering that could improve the company could be proposed to the company and would consider to be implemented in the future.

Intern tasks are observing any problem occurred in the company that could be fixed by the intern's knowledge. Intern could observe any department of the company, so the company would be able to improve their system and received the maximum profits and optimum waste. Intern were helped by Mr. Koko from general HRD and administration as the mentor and Mrs. Yayuk from General Manager as the consultant for every work done by the intern. The intern started at 08.00 – 17.00 WIB with an hour lunch break on 12 o'clock. The observation could be done everyday during the internship, but consulting the work done with the general manager could only be done whenever the general manager present.

4.2. Rights and Responsibilities

During 25 days of worked, student had rights to:

- a. Intern was permitted to enter all room in the production floor and office except deputy in chief's and chief's office room.
- b. Intern was permitted to observe all facilities, company's document related to the tasks assigned.

- c. Intern was permitted to use all facilities in the company in order to finish the assignment.
- d. Intern was permitted to inquire the employee any question related to the tasks assigned.
- e. Intern has a right to receive daily meal allowance during the break.

While the responsibilities given as the following:

- a. Intern must report the industrial practice to the company as soon as possible (before the deadline).
- b. Intern should propose suggestion and recommendation to the result.

4.3. Methodology to complete the assignment

Intern concerned about the basic industrial engineering needs in the company that were not implemented yet. Then, intern found out there are several problems could be fixed by intern as follow:

- a. Layout of the company consist of evacuation route available.

The company need a layout which informed the workers about every room completed with the facilities and room's name, the method of the project could be seen on figure 4.1.

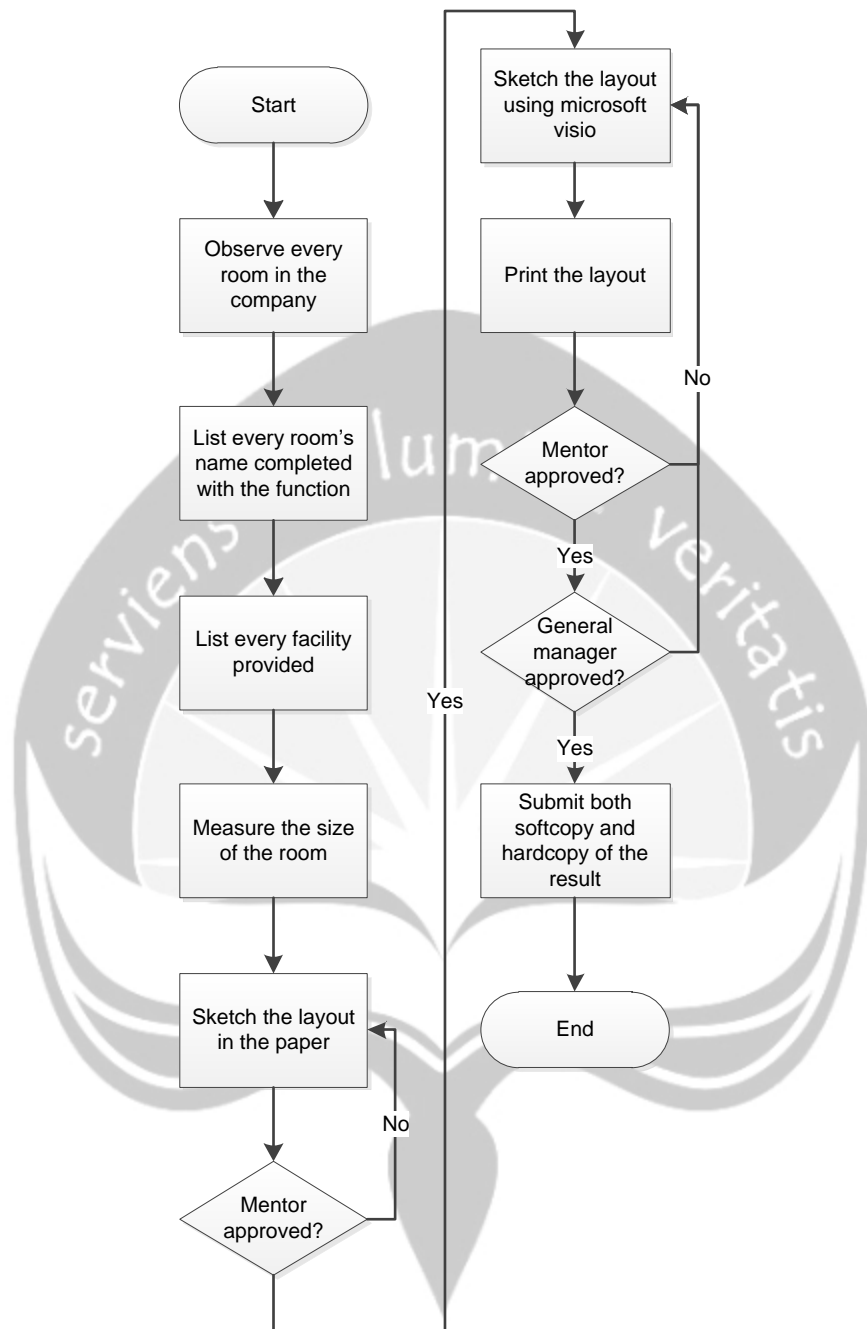


Figure 4.1. Designing Company's Layout Flowchart

b. SOP for the workers to follow.

The SOP for the worker designed to create a boundary for each worker to follow, so the worker will achieve the most efficient and effective way of work. The flowchart on how to design the SOP could be seen below.

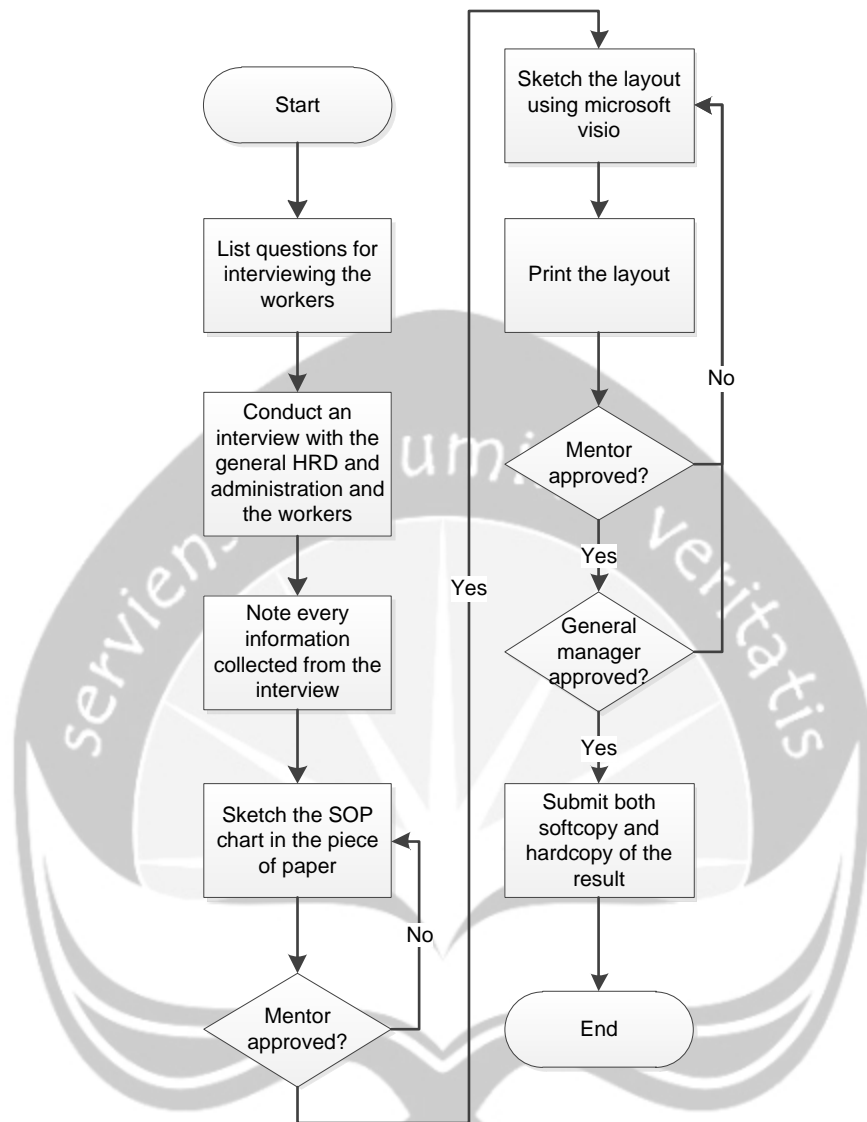


Figure 4.2. Designing Company's SOP Flowchart

Method for each problem occurred could be seen below:

- a. Method to create a layout of the company are:
 - i. Observe every room in the company
 - ii. List every room's name completed with the function of the room
 - iii. List every facility provided in the floor (fire extinguishers, machines, computers, pallets, etc.)
 - iv. Measure the size of every room by measuring the size of the floor
 - v. Sketch the layout in the piece of paper and consult it with the mentor

- vi. Sketch the layout using microsoft visio
- vii. Print the layout in the piece of A4 paper and consult it with the mentor and general manager
- viii. Revise the layout and consult it again until the mentor and general manager were satisfied by the results
- ix. Submit both softcopy and hardcopy of the results to the company.
- b. Method to create a SOP for the workers are:
 - i. List questions for the interview
 - ii. Conduct an interview with the general HRD and administration and the workers involved
 - iii. Note every information collected from the interview
 - iv. Sketch the SOP chart in the piece of paper and consult it with the mentor
 - v. Sketch the SOP using microsoft visio
 - vi. Print the SOP in the A4 paper and consult it with the mentor and general manager
 - vii. Revise the SOP and consult it again until the mentor and general manager were satisfied by the results
 - viii. Submit both softcopy and hardcopy of the result to the company.

4.4. Result of Project

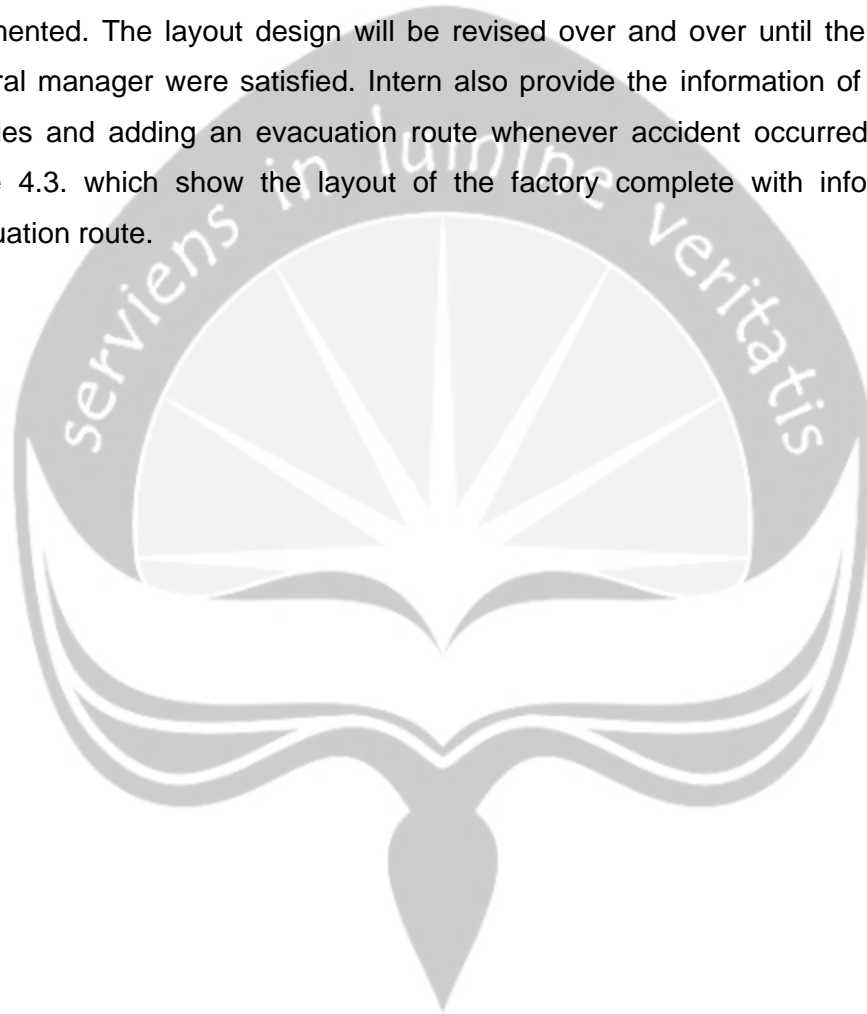
This result of the project discussed in this sub-chapter complete with the process done by the intern.

4.4.1. Company's Layout

Layout is the way in which the parts of something are arranged or laid out. The company located in second handed building used by a former bread factory which bankrupt and taken over by PT. Pondasi Inti Sejahtera. Since the beginning, the company never changed the layout of the factory or even consider to changed it at all. Recently, the company has considering about arranging the storage, because the storage is messy and take a lot of unnecessary spaces. So, the company has figured out that they need a company layout to re layout the storage. After several consideration with the general manager, intern decided to create the layout using microsoft visio. But the general manager and mentor gave several restrictions which

intern could not disturb the workers and the company could not provide any measuring equipment.

First, intern try to sketch the factory complete with rooms name and facilities. then, every rooms measured by using an estimation of the floor tiles, because of the restrictions gave by the mentor and general manager. Finally, the layout designed in the microsoft visio and submitted to both mentor and general manager to be commented. The layout design will be revised over and over until the mentor and general manager were satisfied. Intern also provide the information of every room, facilities and adding an evacuation route whenever accident occurred. below is a figure 4.3. which show the layout of the factory complete with information and evacuation route.



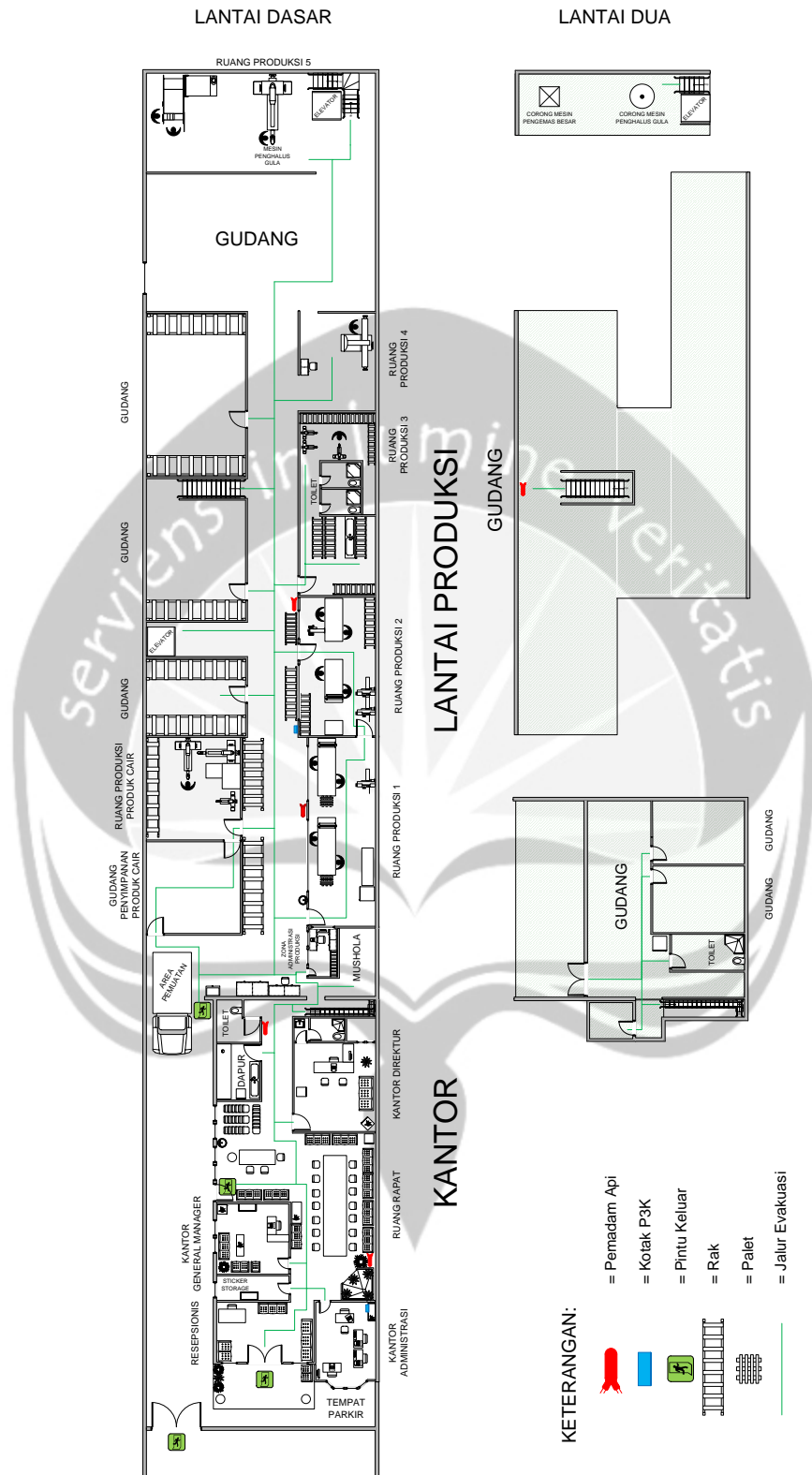


Figure 4.3. Company's Layout

4.4.2. Company's SOP

SOP (Standard Operational Procedure) is a basic step by step process obligation that must be followed by all workers in the company. This company thought SOP is just a simple job explanation for the workers which was an important document to register a company in the government, so the company never thought the importance of the SOP and never even considered in making a specific one. After the explanation of the advantages and importance of the SOP, the mentor asked to create several important SOP for the crucial department.

SOP for this company simply divided into 6 SOP, because these SOP thought played a crucial role for the company. The SOP proposed comes in flowchart and complete with the rules and important information related to SOP. The company's SOP complete with the explanation could be seen below.

a. Sanitation

Sanitation SOP is every step to sanitize the workers who work on packing and producing department and kept the production floor clean complete with the rules and equipment needed by the workers to sanitize it. The sanitation SOP complete with rules and equipment list could be seen below.

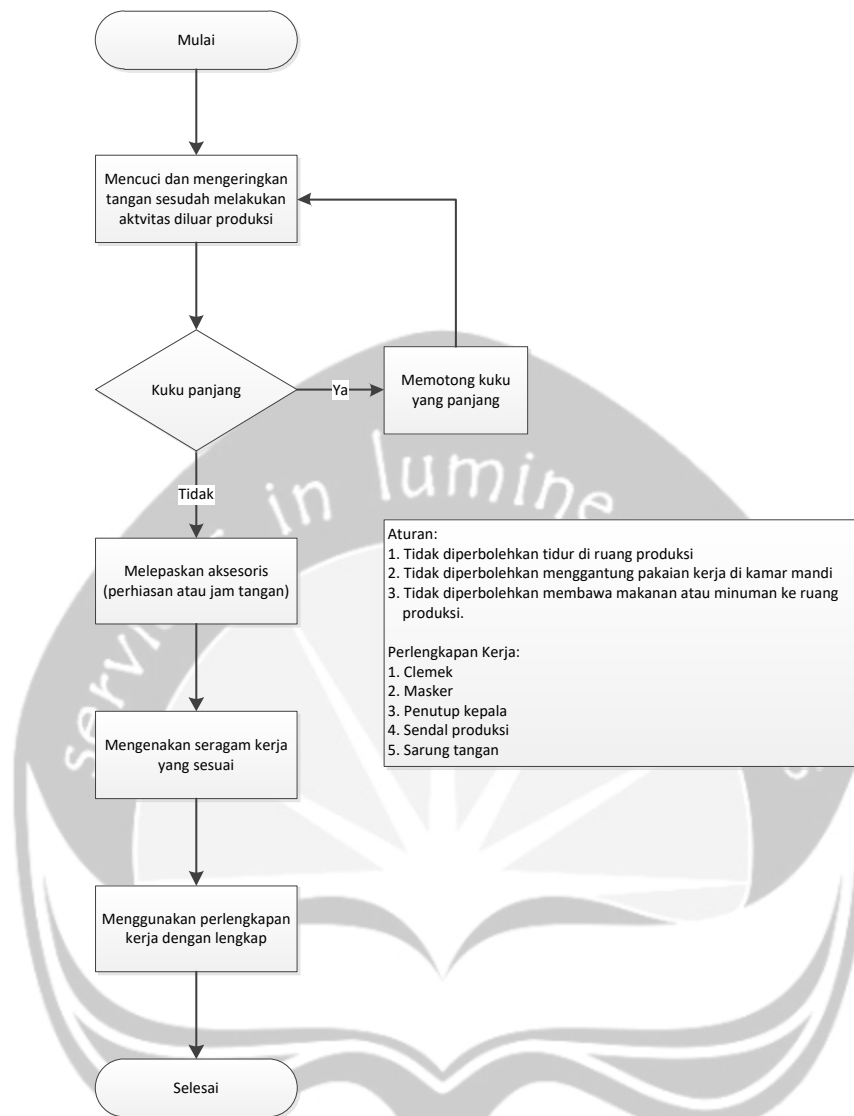


Figure 4.4. Sanitation SOP Flowchart

b. Returns

The product of the company produced with zero defect aim, but sometimes there are unwanted defects occurred. These defects caused by transporting or bad storage, so the customer will need to return the product immediately to the company. The SOP could be seen in figure 4.5. consist of several decision making which helps the storage department informed on what and how to receive or decline a returning product complete with a term and the condition of the returns.

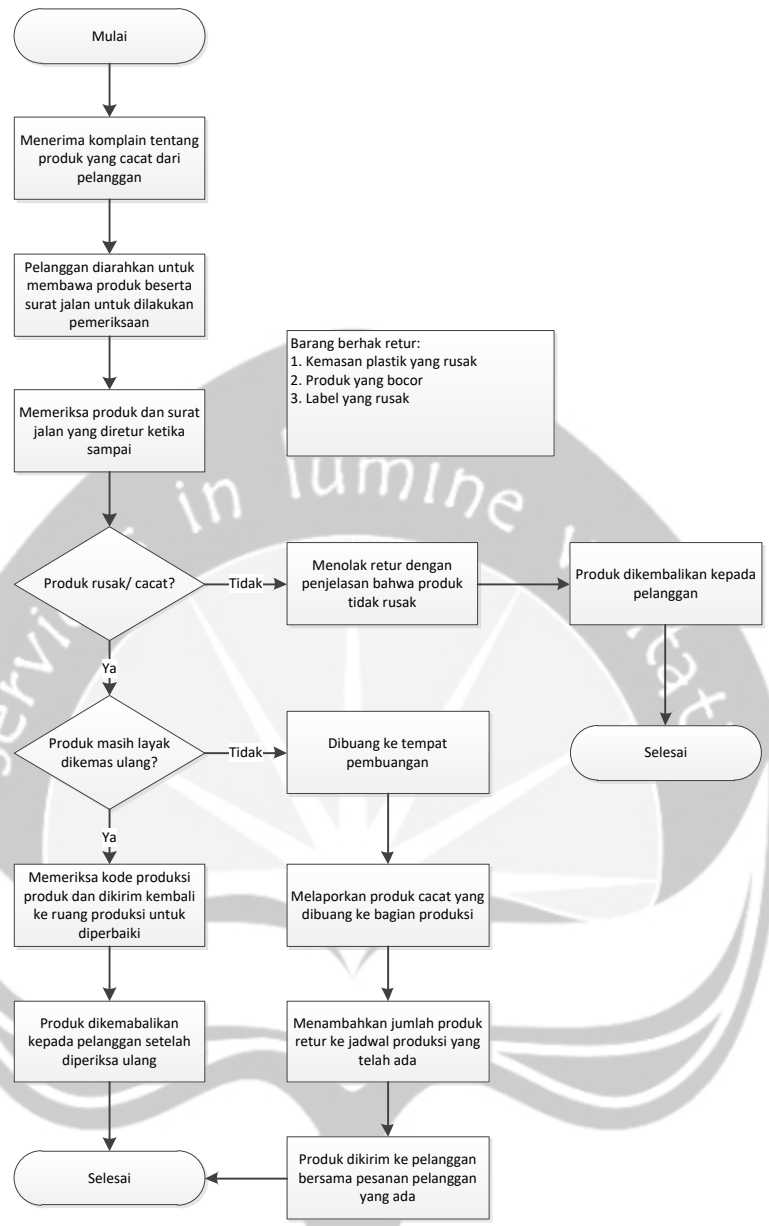


Figure 4.5. Returns SOP Flowchart

c. Storage

Storage SOP is a step by step flowchart on how the storage department receive materials came from the suppliers. This SOP consist of every process needed, terms of good material and good way storing the material which could be seen in figure 4.6.

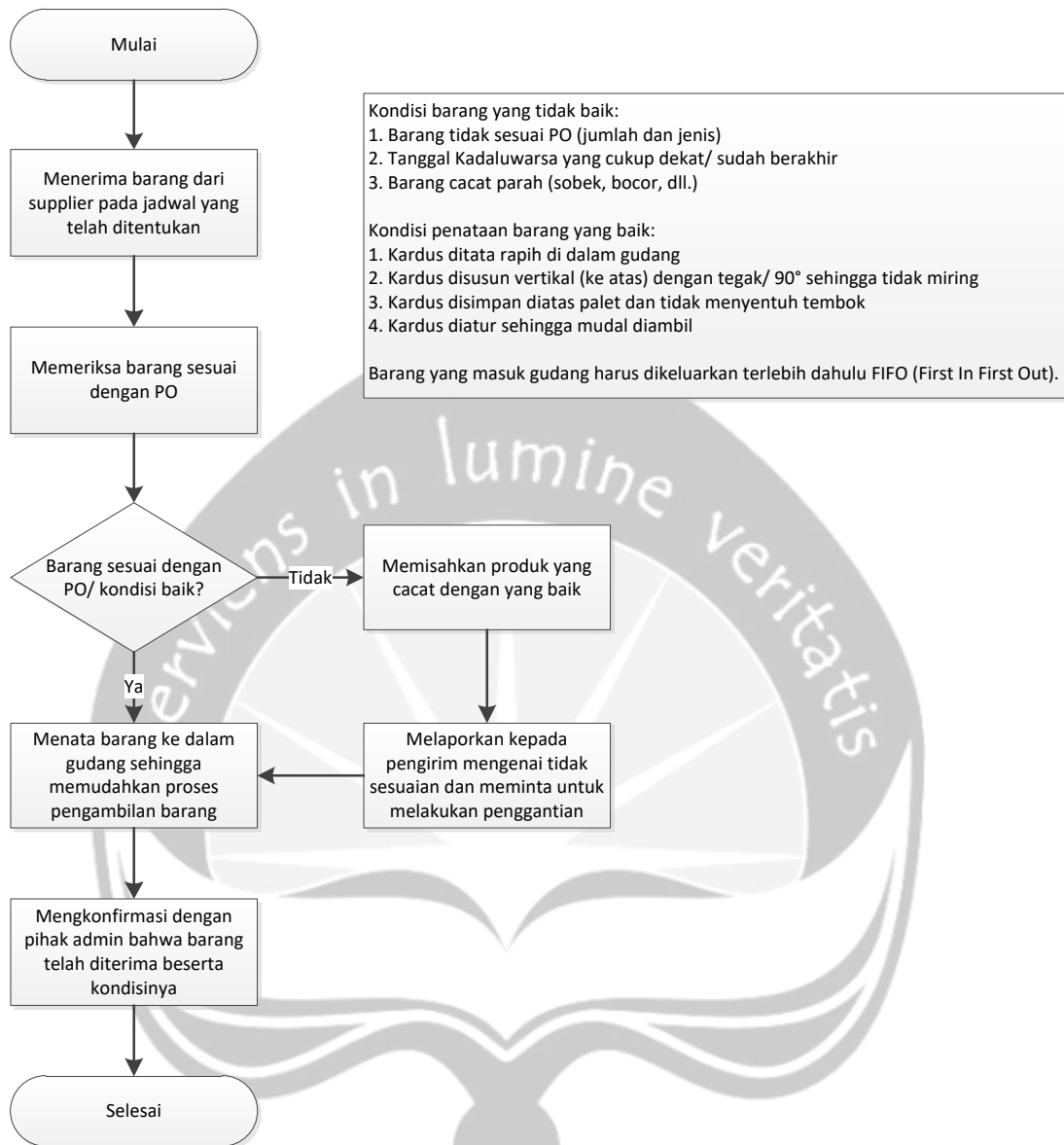
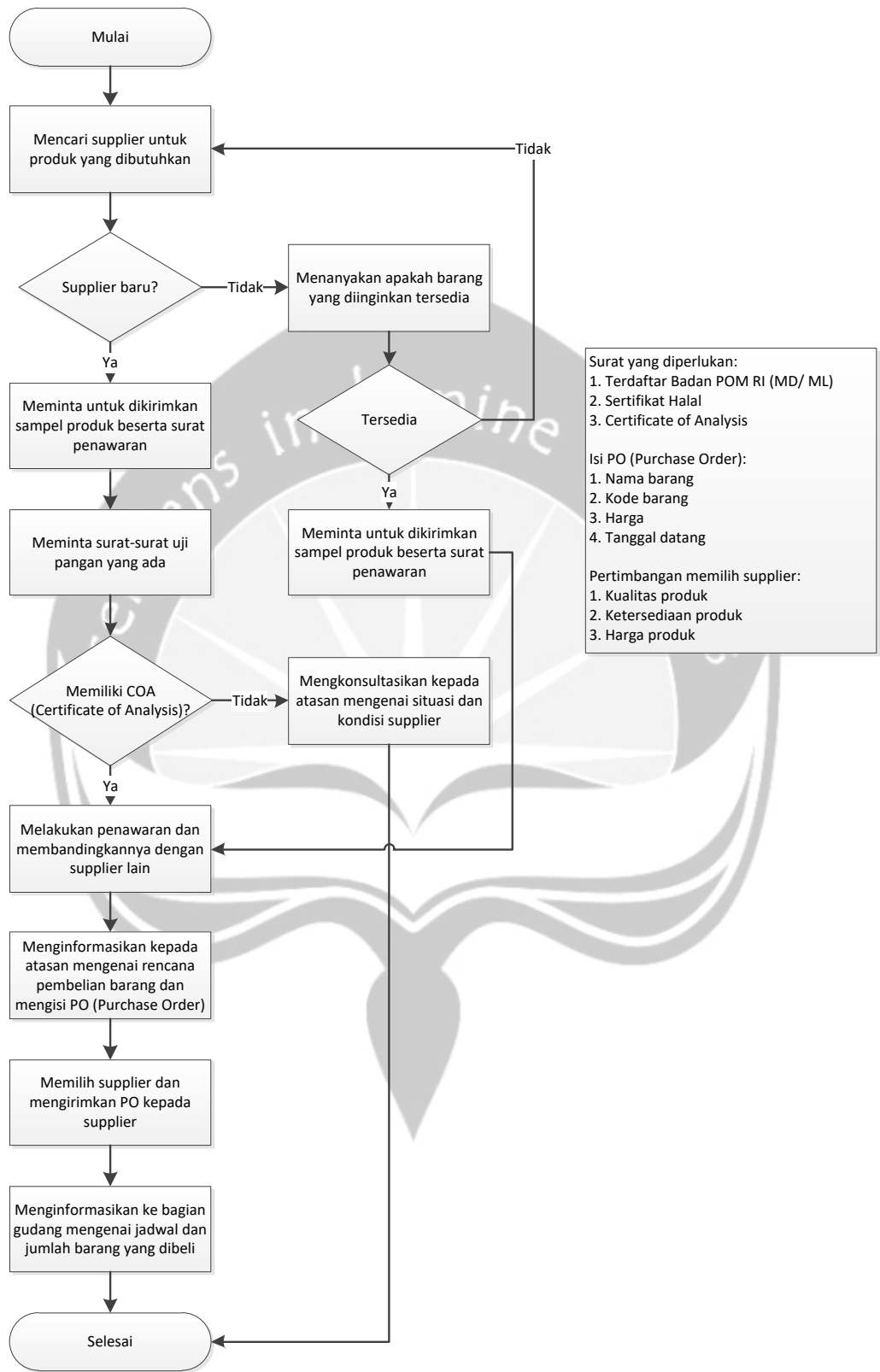


Figure 4.6. Storage SOP Flowchart

d. Procurement

SOP of Procurement providing the general HRD and administration information on how to choose the best supplier complete with every document needed and condition of a good supplier. The procurement process must prioritize quality over prices, because the company must keep the quality on point to earn customer trust. This flowchart could be seen on figure 4.7. below.



Surat yang diperlukan:
 1. Terdaftar Badan POM RI (MD/ ML)
 2. Sertifikat Halal
 3. Certificate of Analysis

Isi PO (Purchase Order):
 1. Nama barang
 2. Kode barang
 3. Harga
 4. Tanggal datang

Pertimbangan memilih supplier:
 1. Kualitas produk
 2. Ketersediaan produk
 3. Harga produk

Figure 4.7. Procurement SOP Flowchart

e. Packing

Packing in this company is the major process which produce most of the products, so it is necessary to have SOP for the workers on packing department. This SOP as seen in figure 4.8. contain step to pack a product from checking a DO (delivery order) until the product is finished and checking another DO. The SOP could be seen below.



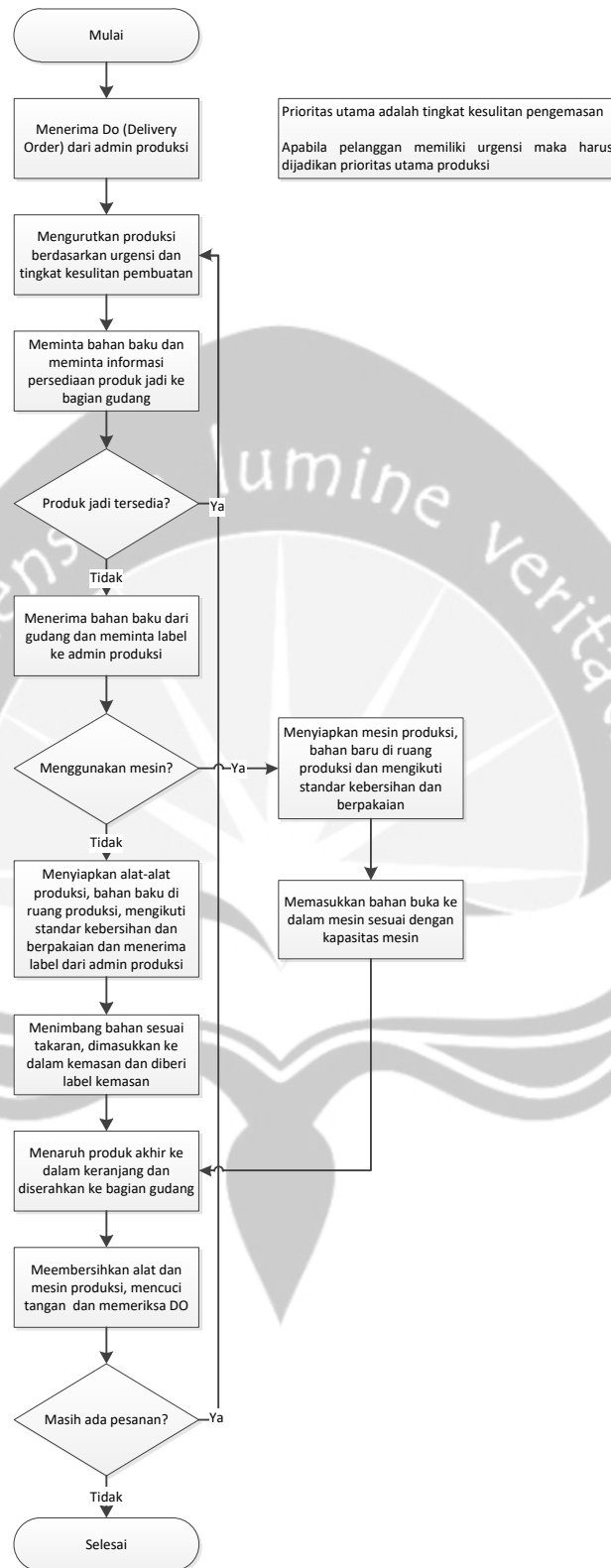


Figure 4.8. Packing SOP Flowchart

f. Production

Beside packing this company also produce product such as sugar which also must be provided with a SOP. Production SOP consist of every step on how to produce a product for production department workers and the SOP could be seen on figure 4.9.

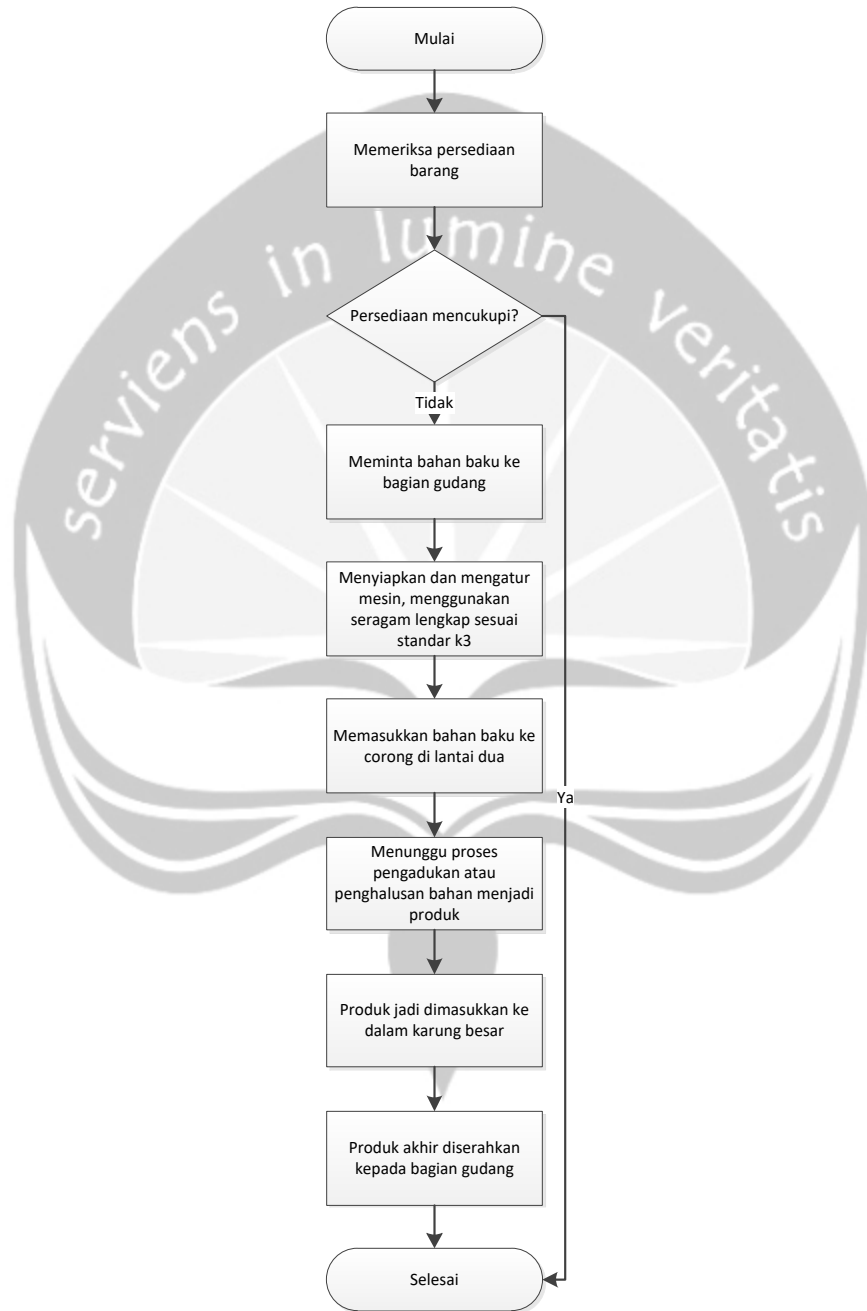


Figure 4.9. Production SOP Flowchart

CHAPTER 5

CLOSING

5.1. Conclusion

The project used basic industrial engineering knowledge which is simple but complicated to applied, the project results are layout and SOP for the company to use. Although the company could not be sure whether the result could be applied to the workers with current attitude such as wearing gloves which is necessary, but the workers always refuse to wear them with their own reason. But these documents shall be provided and applied slowly to the workers, so a change could be seen time by time.

5.2. Suggestions

The layout could not be accurate enough, because of the lack of equipment. So, future project related to designing the layout shall use a scientific measurement with scientific equipment such as rulers and calipers to measure the building complete with the walls.

SOP for the workers also could be improved whenever there is improvement implemented in the system, so the future project should teach the workers how to change the SOP by themselves. The SOP also in the future project should be socialize into the workers, so the workers could apply the SOP immediately.